

4. Operation

The LEDs on the Extender Units show the real-time status indicating the linking and communication between the Console Unit and Computer Unit. Users can identify the present status through the LED indicator on the top. See Figures 2-3 and 2-6 and Tables 2-1 and 2-2.

The quality of the output signal will depend largely upon the quality of video source, cable, and display device used. Low-quality cables degrade the output signal causing elevated noise levels. Use the proper cable and make sure the display device can handle the resolution and refresh rate selected.

5. Application Diagram

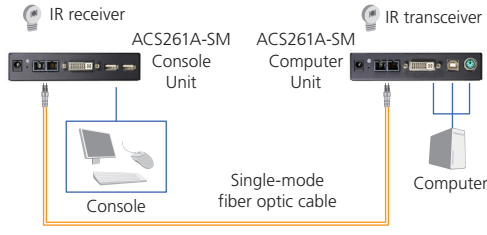


Figure 5-1. Typical installation.



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ACS261A-SM, version 1

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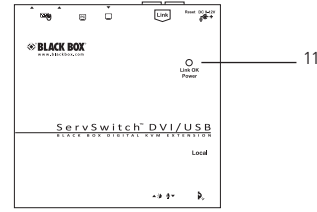


Figure 2-6. Computer unit top panel.

Table 2-2. Computer Unit components.

Number	Component	Description
1	Audio connector	Connects to speaker
2	Audio connector	Connects to microphone
3	IR control jack	Plug in the external sensor here
4	Barrel connector	Links to power
5	Link OK LED	Flashing yellow: Link OK
6	(2) SC connectors	Connect to fiber
7	DVI connector	Links to computer video port
8	(1) USB Type B connector	Connects to computer keyboard and mouse
9	(1) 6-pin mini DIN connector	Connects to computer PS/2 keyboard and mouse
10	Reset button	Resets unit
11	Link OK/Power LED	Green: Power on Blue: Link OK

3. Installation

- Power off all devices that will be connected to this system.
- Make sure that all devices you will connect are properly grounded.
- Place units away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.
- Determine where the Console Unit and the Computer Unit will be located.
- Use SC to SC duplex single-mode fiber optic cable (8–10 μm) for the interconnection between Console Unit and Computer Unit.
- Make sure that the fiber cable length is long enough for the connection between the Console Unit and the Computer Unit to prevent having to splice fiber.
- Never attempt to disassemble or reassemble the enclosure for any purpose. This may cause personal injury and/or property damage.

Considerations for Duplex Optical Fiber Installation

1. Users may need to order appropriate cable lengths conforming to the application environment; however, the maximum cable length should not exceed 3200 ft. (1000 meters). Otherwise, the video resolution signal may degrade.
 2. Do not exceed the cable bend radius. Fiber optic cable can break when kinked or bent too tightly, especially during pulling.
 3. Do not twist the cable. Twisting the cable can stress the fibers. Tension on the cable and pulling ropes can cause twisting.
- CAUTION:** Do not look into the ends of any fiber optic cables. You might be exposed to harmful invisible laser radiation.
4. Follow the cable manufacturer's recommendations. Fiber optic cable is often custom designed for the installation, and the manufacturer may have specific instructions on its installation.

Installing the Extender

Users can connect the video source and keyboard and mouse ports to the Computer Unit; connect the keyboard, mouse, and monitor to the Console Unit, and use an SC to SC duplex fiber optic cable for the SC-SC fiber port connection between the Console Unit and the Computer Unit. After all device connections are completed, connect the provided power cord into an appropriate power source and plug the opposite end into the power connector on the Unit to power up.

ACS261A-SM

BLACK BOX

NETWORK SERVICES

DVI-D USB Fiber Extender Single-Mode with Audio

Using fiber optic cable, place a computer up to 3280 feet (1000 m) away from a console.



Customer Support Information

Order toll-free in the U.S.: Call 877-877-BBOX (outside U.S. call 724-746-5500) • FREE technical support 24 hours a day, 7 days a week: Call 724-746-5500 or fax 724-746-0746 • Mailing address: Black Box Corporation, 1000 Park Drive, Lawrence, PA 15055-1018 Web site: www.blackbox.com • E-mail: info@blackbox.com

Figure 2-5. Computer Unit back panel.

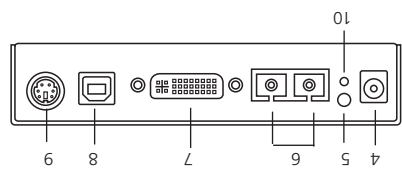
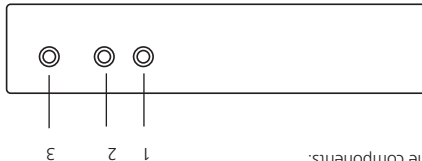


Figure 2-4. Computer Unit front panel.



Figures 2-4 through 2-6 show the front, back, and top panels of the Computer Unit. Table 2-2 describes the components.

Number	Component	Description
10	Link OK/Power LED	Red: Power on Blue: Link OK
9	Reset button	Resets unit
8	Link OK LED	Flashing yellow: Link OK

Table 2-1 (continued). Console Unit components.

Number	Component	Description
1	Audio connector	Connects to speaker
2	Audio connector	Connects to microphone
3	IR control jack	Plug in the external sensor here
4	Barrel connector	Links to 9 VDC power supply
5	(2) SC connectors	Connects to fiber interface
6	Video connector	Connects to DVI monitor
7	(2) USB Type A connectors	Keyboard/mouse

Table 2-1. Console Unit components.

Figure 2-3. Console Unit top panel.

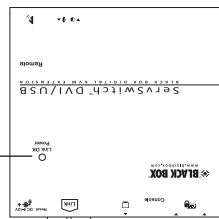


Figure 2-2. Console Unit back panel.

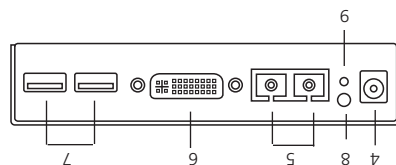
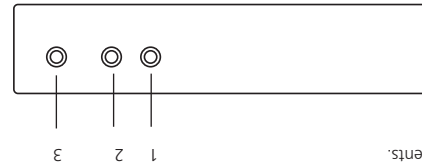


Figure 2-1. Console Unit front panel.



Figures 2-1 through 2-3 show the front, back, and top panels of the Console Unit. Table 2-1 describes the components.

2.4.1 Console Unit

2.4 Hardware Description

- USB Type A-B cable
- DVI cable and audio cable
- USB keyboard/mouse for KVM control
- This user's manual
- (2) sets of foot pads
- SC-5C Fiber Optic Cable (for test)
- (2) power supplies with power cord
- PS/2 Y Cable
- Extender Console Unit
- Extender Computer Unit
- Console unit: Keyboard/Mouse: (2) USB Type A, info@blackbox.com.

2.2 What's Included

- Supports EDID for high-definition display.
- Supports surge protection
- Supports human interface devices (HIDs) (keyboards, mice, etc.)
- Your package should contain the following items: If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

1. Specifications
 - Extension Distance — 3280 ft. (1000 m)
 - Unit Connection — Fiber optics
 - Video Resolution (Max.) — WUXGA (1920 x 1200)/Full HD (1920 x 1080)
 2. Overview
 - Weight — 1.34 lb. (0.61 kg)
 - Size — Each unit (Console and Computer units): 1.1" H x 5.2" W x 5.1" D (2.7 x 13.1 x 13 cm)
 - 2.1 Features
 - KVM Extender pair connects via fiber optics cable.
 - Remotely locate the keyboard, mouse and monitor up to 3280 feet (1000 meters) away from a computer with the resolution of Full HD (1920 x 1080) or WUXGA (1920 x 1200).
 - Supports PS2/USB PC or KVM.
- NOTE:** When USB and PS2 are connected simultaneously, USB has a higher priority than PS2 connection.
- Indicators** — (1) dual-color Power/Link Status LED, (1) fiber optic signal LED
- Power Supply** — 9 VDC, 1.5 amp
- NOTE:** The unit can support 9–12 VDC.
- Size** — Each unit (Console and Computer units): 1.1" H x 5.2" W x 5.1" D (2.7 x 13.1 x 13 cm)
- 2.4.1 Console Unit**
- 2.4 Hardware Description**
- USB Type A-B cable
 - DVI cable and audio cable
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- 2.4.2 Computer Unit**
- Figures 2-4 through 2-6 show the front, back, and top panels of the Computer Unit. Table 2-2 describes the components.